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Persuading a higher price: The effect of price, influence tactics and product involvement on price fairness

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Tiivistelmä

Erilaisilla myyntitaktiikoilla pyritään yleisesti vaikuttamaan asiakkaiden ostospäätökseen ja niiden uskotaan myös vaikuttavan positiivisesti hinnan oikeudenmukaisuuteen. Kuitenkin voidaan olettaa, että myös hinta ja asiakasosallisuus moderoivat asiakkaan arviointia myyntitarjouksesta. Tämän työn tarkoitus on tutkia myyntitaktiikoiden 'sosiaalisen validoinnin' ja 'auktoriteetin' vaikutusta hinnan oikeudenmukaisuuteen eritasoisten hintaluokkien ja asiakasosallisuuden olosuhteissa. Data kerättiin 1418 jäseneltä suomalaisen kiinteistönvälitysalan yrityksen asiakastietokannoista.

Tutkimuksen tulos paljasti, että korkean tason asiakasosallisuuden omaavilla asiakkailla tai keskiverto- ja korkean hinnan olosuhteissa, myyntitaktiikat vaikuttivat negatiivisesti ja 'ei merkittävästi' hinnan oikeudenmukaisuuteen. Silti, sosiaalisella validoinnilla keskivertohinnalla matalan asiakasosallisuuden omaavilla asiakkailla oli positiivinen vaikutus hinnan oikeudenmukaisuuteen. Johtajille ja myynnin ammattilaisille tulos merkitsee sitä, että myyntitaktiikoiden tehokkuus tulisi johtaa myös asiakasosallisuuden ja hintaluokkien mukaan jotta myyntitarjouksen uskottavuus säilyy mahdollistaen samalla myös korkeamman hinnan.

Avainsanat Myyntipsykologia, Myyntitaktiikat, Hinnan Oikeudenmukaisuus, Asiakasosallisuus

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Abstract

Sales influence tactics are commonly used to influence consumers' product evaluations and implicitly thought to have a positive effect on price fairness. However, it can be assumed that the price levels and the degree of consumer involvement have a moderating effect on the consumer's evaluation of the offering. The purpose of this research is to investigate the effect of influence tactics 'authority' and 'social proof' under different degrees of product involvement and price levels on perceived price fairness. The data was collected from 1418 members of a Finnish real estate agency's customer data base and revealed that, for highly involved consumers or at medium or high price levels, influence tactics had a non-significant and negative effect on price fairness. However, using social proof at a standard price level for consumers with low product involvement had a positive effect on price fairness. For managers, the results imply that the effectiveness of these tactics should also be derived from the degree of involvement and the price. Thus ensuring higher credibility of the sales presentation and persuading a higher price.

Keywords Persuasion, Influence Tactics, Involvement, Price Fairness

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1. Introduction

Persuasive technologies designed to change people's attitude and behavior have been widely adopted among online vendors. These systems tailor their product offerings based on user responses in order to increase the effectiveness in selling. For example, Amazon's recommendations are based on what similar customers have done in similar situations. Cialdini (2001) introduces six different principles of influence tactics based on social psychology and experimental studies in "compliance": liking, reciprocity, social proof, consistency, authority and scarcity. He argues that utilizing these influence tactics enables one to lead, concede and change peoples' attitudes (Cialdini 2001). Lately, these face-to-face techniques of compliance are being transformed into these persuasive systems. As these influence tactics has shown to be effective (Zanker et al., 2006), companies have increasingly been integrating these tactics into their recommender and review systems (Rosanna and Cialdini 2006; Cialdini and Goldstein 2004).

Although personalization plays a key role in interactive marketing (Montgomery and Smith 2009), no theories exist that would explain the effectiveness of these tactics through situational and contextual factors such as consumer involvement and price levels. Existing theories explain effectiveness by matching influence tactics to each buyer's 'type' depending on his or her susceptibility to different influence processes (Frazier and Summers 1984; Brown 1990; Spiro and Weitz 1990; McFarland et al., 2006), thus individual data such as demographics; previous browsing and purchase history are utilized to increase the likelihood of a purchase (Kaptain, Parvinen and Pöyry 2013). However, as transforming proven effective face-to-face selling psychology online still seems to be rather difficult (Parvinen et al., 2014), it is also necessary to explore how these factors influence the sales success. Through digitalization, products and services are getting increasingly available, expanding to social networks, (Castells 2011; Castells 2007) and continuously changing the digital locus of selling (Castells 2007; Castells 2011; Parvinen et al., 2011),thus a further understanding on how and why certain influence tactics should be adapted based on the dynamics of involvement and price is needed.

The construct of involvement which incorporates both situational motivation and ability to process arguments plays a determinant role in explaining consumer behavior, and has shown to have a moderating effect on decision-making and response to persuasive messages (Mittal and Lee 1989; Park et al., 2007). Based on the degree of involvement the elaboration likelihood model identifies two routes of persuasion. High elaboration is related with thoughtful issue-related evaluations, and

low elaboration with simple evaluations base on peripheral cues (Petty and Cacioppo 1986). Since, influence tactics base their argumentation on cues about the skillfulness of the salesperson, they also persuade through the peripheral route. At the same time, the interaction is also highly dependent on the perceived price fairness which in the case of unfairness might affect the evaluations negatively. However, as price has shown to play a multiple role in evaluation processes (Erikson and Johansson 1985), the role of price as cue might differ depending on the context. Furthermore, since the price cue has shown to be differently evaluated based on the degree of involvement, there is a need for new knowledge on how the cues of price and these tactics interact. Therefore, investigating this mechanism provides new consumer segmentation options enabling further advancement in personalization and improving the effectiveness of sales presentations.

The purpose of this research is to provide new sales practices by developing a research model for investigating the effects of social proof and authority on price fairness. Firstly, we compare the direct effects of social proof and authority on price fairness at different price levels. Secondly, we analyze how the moderating effect of different degrees of product involvement and the interaction of price and involvement influences this relationship. In addition, the dimensionality of price fairness is analyzed as it gives a more in-depth understanding of the relationship between influence tactics and price fairness.

This research paper consists of three main sections. Firstly, a traditional literature review was conducted to review the theoretical foundations of influence tactics, consumer involvement and price fairness. Secondly, we analyze how the effects of different manipulations of social proof and authority affect price fairness under different degrees of involvement and at different price levels. Thirdly, the main findings are discussed. Finally, future research areas are proposed and some practical managerial implications suggested.

2. Theoretical background

2.1 Influence Tactics

Influence tactics have been extensively studied at an industrial channel (Frazier and Rody 1991) and person-to-person (Spiro and Williams 1985) level in the marketing literature. Researchers have made a comprehensive taxonomy in categorizing persuasive messages and influence tactics. Different authors introduced various taxonomies, Cialdini (2001) introduced six fundamental principles of persuasion and Fogg (2009) presented a matrix called the behavioral grid with 35 different behavioral patterns and an equal amount of resonating persuasive technologies.

Successful selling on a person-to-person level depends on successful interpersonal selling, where communication styles are a determinant part of the sales interaction (Spiro and Williams 1985). An effective salesperson might utilize “Impression Management” which includes many specific types

of behavior of personal appearance (Brown 1990). Although identification of different influence tactics is the basis of adapting selling, it is insufficient unless it can be correctly targeted (McFarland, Challagalla and Tasadduq 2006). Furthermore similar behavior by the salesperson may have different effects on buyers' perceptions depending on the situational context in which the behavior occurs (Brown 1990).

Previous selling literature has identified different influence tactics and acknowledged the effective usage of these influence tactics (McFarland, Challagalla and Tasaduqq 2006). In addition in interpersonal selling, ingratiation (Spiro and Perrault 1979) and inspirational appeals (Yukl and Tracey 1992) are highly relevant. According to Forgas (1995), emotion influence thinking and human behavior. Similarly, the salespersons attractiveness affects the buyer and has pertinent role in the sales performance (Ahearne, Gruen and Jarvis 1999). Thus in order to achieve effectiveness in a person-to-person selling context, salespeople should also emphasize the subjectivity in the sales interaction. This approach requires a deeper personal engagement in which the psychological needs of the buyer are taken into consideration (Forgas 1995). According to Yukl and Tracey (1992) the most effective influence tactics are persuasion, inspirational appeal and consultation.

Mechanical patterns of action are found everywhere in the animal kingdom, a specific triggering feature in nature leads to a direct action. Experiments made by ethologists show that, a very specific stimuli produces a mechanical response that occur in same fashion every time. Similarly, a certain feature is able to trigger human action. These actions can be seen as shortcuts utilized in order to avoid analyzing the situation, thus creating stereotypes. Human behavior in a wide variety of situations is guided by these stereotypes, sometimes because of efficiency and in other cases due to survival. In some situations relaying on stereotypes might lead to wrong action, but it is the most efficient way of human behavior.

At the same time a huge amount of information about persuasion lies within professionals of compliance who have developed their sales tactics over the years in order to improve their business. These sales tactics are based on the psychological principles of compliance that affect human behavior, correctly directed they gain power and increase the probability of sale in a purchase decision. Robert Cialdini, the author of the book *Influence,* worked undercover under a period of three years in a wide range of professions where compliance in a sales environment was effectively used. As an experimental social psychologist Cialdini (2001), was able to identify six different influence tactics that attempt to change people's attitudes and behavior through persuasive power in order to positively affect a purchase decision. According to the social system theory and social differentiation, the modern society is transforming into a more complex form due to an increasing number of differentiated subsystems. To cope with this new information people are forced to rely on generalizations instead of thinking first.

Authority

People have obeyed authority figures of different kind since bygone times and a sense of duty to authority has been considered as virtue among people (Cialdini 2001). Lately, the Western civilization has significantly reduced the respect of authority and instead supported individual

decision-making also emphasizing ethical and moral values. Still, our modern society is constituted of different kinds of social institutions in which obedience can clearly be identified, authority figures such as judges, politicians, police officers, doctors, managers and academicians use social influence to a high extent without being questioned and instead obedience is considerate as a norm.

Stanley Milgram's (1963) behavioral study on obedience is considered as the social psychology experiment of century by some and unethical, psychologically abusive and traumatizing by others. In this notorious experiment, *the experimenter* the person in charge and with a position of authority obeyed *the teacher* to give electric shocks to *the learner* based on his right or wrong answers in a word-pair quiz. In reality, *the learne*r was only acting and never received any electric shocks while *the teacher* who was randomly selected and believed he was delivering actual shocks. In the experiment, 65% of the participators continued to deliver shocks to the final 450 volt fully aware of the serious danger they caused. In the Stanford Prison Experiment, Zimbardo (1973) showed how pseudo prison conditions affected obedience. Students were given the role of either a prisoner or a guard and performed assignment together based on their roles. However, the experiment was terminated after six days as the behavior turned so aggressive.

In both of the experiments, the purpose was to follow how far the participants would go endangering another person. The result showed that the ability to resist authority is a very uncommon feature among ordinary people. Despite very uncomfortable feelings, the participators were still capable of taking unmoral actions even risking another person's life. The main conclusion is that the result of the study is explained by the experimental conditions, the impression of knowledge and education made people obey. Furthermore, the embodiment of authority reduces the feeling of personal responsibility and leads to mechanical responses.

In healthcare, doctors with high rank and special knowledge gains compliance from co-workers with lower ranks without questioning. Thus, affecting the organizational culture negatively and supporting the traditional hierarchy structure which also is primarily responsible for the high-rated misjudgments reported in US hospitals (Cialdini 2001). Also in everyday work obedience occur as people take advices from employers without doubting, assuming they have greater judgment skills and power to influence the employee's career prospects.

As authority is based on expertise it should be acknowledged by others in order to be utilized as an influence strategy. Applying authority in a marketing context should include expert opinions, well-known people with special know-how and impressive research results presented in a similar professional fashion makes the influence tactic even more persuasive. As it is apparent that the appearance of the authority figure determines the power of persuasion, it is further reinforced with titles (e.g. education), clothes and trappings (e.g. cars, jewelries, etc.) (Cialdini 2001).

Social Proof

Social proof is particularly evident and powerful among believers in cults, where massive social commitment enables the believers to share their faith despite of the non-credible and paranormal beliefs. Similarly, emperors and religious leaders have utilized social proof in order to convince

people to conduct massive operations according to their own purposes. In addition people under a state of vulnerability are more likely to use social proof.

People assume that generalizing human behavior is sufficient enough to determine whether a certain behavior is correct or not. Hence, people use the surrounding behavior as a tool for judging rightness. Instead of making own judgments, using social proof generally ensures being on the safe side and making less mistakes. Therefore, using social proof seems very justified in many situations. As social acceptance provides major shortcuts in decision-making, simultaneously it also eliminates the individual's internal evaluations process, displaying both the strength and the weakness of social proof.

Social Proof is utilized in many situations with various motives. In some situations the mechanical response is distinctly identified. Social proof works out although people are aware of the social triggering feature and how it is used to persuade. This persuasive effect is clearly evident in comedy shows where a separate soundtrack with recorded laughter from an audience is added to increase the humorous reaction of others. Although people are aware of the regularly inserted audio laughter, people still enjoy the effect and consider the situation funnier than without this feature. Hence, the triggering feature, which in this case is the soundtrack of recorded laughter, leads to a direct mechanical response.

In online environment social proof can be utilized extremely effective. Product recommendation systems are a powerful tool to convince others in purchase decision. Similarly, customer-rating and reviews functions as a trust building mechanism. People with social similarities and the number of people who share the same initiative further improve the persuasiveness (Cialdini 1993).

2.2 Consumer Involvement and the Elaboration Likelihood Model

According to consumer behavior literature, consumer involvement is considered to play a determinant role in explaining consumer behavior (Laurent and Kapferer 1985; Andrew 1979). The concept of involvement has been extensively discussed in previous consumer behavior research (Mittal and Lee 1989 and Cohen 1983) whereas involvement is seen as a reflection of the degree of relevance to an object or a decision (Engel and Blackwell 1982). In practice, involvement commonly appears as different levels and forms of interest (Mittal 1983).

The concept of ego involvement which is closely related to an individual's self-identity (Muzafer and Cantril 1947) was introduced in social psychology in order to explain the observed variety in attitude change (Hovland 1951) and persuasive communication (Greenwald 1968). Attitude change occurs as new ideas are compared with a collection of attitudes rooted in the individual's identity and related social issues (Sherif et al., 1965). This evaluation process theory also formalized the social judgment theory, SJT (1980).

The SJT is a persuasion theory which explains how judgments of an idea are generated based on past and current experiences as an internal process highly related to the ego involvement which

functions as a reference point or so-called anchor. According to the SJT, the propensity for attitude change is based on the degree of ego involvement, thus affecting the individual's evaluation processes. An individual with a high level of involvement is more likely to reject an idea due to more restricted latitude of acceptance (Rhine and Severance 1970). Contradictory, an individual with a low level of involvement is more likely to accept an idea due to less restricted latitude of acceptance (Hovland and Sherif 1961). Therefore, in order to persuade successfully, the message should meet the receiver's latitude of acceptance.

The Elaboration likelihood model of persuasion, ELM (Petty and Cacioppo 1986) is a framework of attitude change categorizing research findings that previously had little agreement both in theory and experiments into a general theory. According to the ELM attitudes should be seen as evaluations based on cognitive, affective and behavioral experiences. By placing a person's attitude along the elaboration continuum based on the person's motivation and ability, the ELM divides people into two different routes of persuasion: *the central route* and *the peripheral route.* The elaboration continuum expresses the likelihood to elaborate on persuasive messages, high and low level elaboration corresponds with high and low probability of elaborating the cognitive information of the message. The central route persuades through logical and thoughtful issue-related evaluations where high ability and motivation enables decision-making via consistent argumentation based on the received information and changing attitudes in a more gradual manner. Conversely the peripheral route persuades through simple affective argumentation and social cues where the attitude change might be more complete but short-lived instead. However, the power of persuasion is stronger in the first route (Petty and Cacioppo 1979; Petty and Cacioppo 1986), it also enables a persistent attitude change and therefore also functions as a more reliable predictor of behavior, in opposite to the second route (Petty and Cacioppo 1986).

However, there is a clear inconsistency between the ELM's and the SJT's conclusions. As the SJT stated that a high level of involvement result in a restricted acceptance and a greater probability of rejection, contrary the ELM highlights powerful and persistent persuasion in issue-related argumentation if the receiver is motivated and able to elaborate on the message. The SJT doesn't consider involvement from an issue-relevant perspective; instead it concentrates on ego-involvement which is related to personal involvement and personal consequences. This discrepancy between the two research traditions is manifested in the multifaceted concept of involvement.

The concept of involvement is a multidimensional construct and widely discussed in the literature, explaining the different forms, sources and effects (Mittal and Lee 1989; Laurent and Kapferer 1985) of involvement. Further, several authors (Mittal and Lee 1989; Gendel-Guterman and Shalom Levy 2013) have proposed frameworks which identifies the different concepts of involvement and how they affect different forms of behavior (Laurent and Kapferer 1985; Mittal and Lee 1989). As a result, involvement should be viewed from this conceptual perspective, in order to be able to predict how different levels and forms of involvement influence different decision processes.

Consumer involvement is highly related to the consumer's value system and the consumer's personal relevance to the product or service (Mittal and Lee 1989; Engel and Blackwell 1982). In addition, also contextual factors such as current mindset, situational factors, source of

communication, product lifecycle, etc. all contribute to the generated motivation and attitude (Ramon and Severance 1970). Further, the degree and form of consumer involvement differs by product and service categories (Zaichkowsky 1989) also the related effects has been proven to differ accordingly (Spangenberg and Crowley 1996). The degree of involvement also effects the degree of persistency in attitude change, -resistance to counter argumentation and -predictiveness in consumer behavior (Petty and Krosnick 2014), providing valuable information about the consumer's attitude strength and accuracy in predicting behavior.

Understanding or predicting attitude change might be difficult as it comprehends many processes and associated factors (Kelman 1958; Petty and Cacioppo 1986). In some situations attitude change occurs based on primitive affective processes (Zajonc 1980) without any relation to the object. Also, conflicting results have been presented, according to Rhine and Severance (1970), utilizing an expert as source in cognitive argumentation showed no significant effect. Furthermore, Strernthal et. al (1978) even found negative effects. These conflicting results suggested that the *context effect* and situational factors significantly influence persuasive argumentation. Similarly, the ELM concluded that variables in persuasive argumentation may take three different forms, cognitive arguments, positive or negative cues and motivators for cognitive argumentation thus, steering the direction and magnitude on the elaboration continuum.

More recently, Choi and Salomon (2003) criticized the duality in ELM, by saying that people should be considered as multi-channel processors thus, also able to choose the both routes of persuasion simultaneously. Due to limited availability of cognitive capacity among people, affective cues are becoming an utterly important part of issue-relevant argumentation. Therefore, controlling the relationship between cognitive and affective argumentation in proportion to the degree of consumer involvement will determine the power of persuasion.

As consumer involvement has shown to have a moderated effect on decision-making and response to persuasive messages (Mittal and Lee 1989) it could also be argued that consumer involvement moderates the effects of persuasive influence tactics. Further, as different influence tactics operate through different mechanisms, it could be further argued that the degree of involvement moderates their effect differently.

2.3 Price perception

Price Fairness

Behavioral pricing combines traditional pricing research with behavioral sciences and psychology. Theorists have made various conceptualizations of behavioral pricing, price fairness is categorized under behavioral science and additionally comprehends a social dimension. According to Xia, Monroe and Cox (2004), price fairness can be defined as a consumer's assessment and associated emotions of whether the difference between (or lack of difference) a seller's price and the price of a comparative other party is reasonable, acceptable or justifiable. Thus, the price fairness evaluation is based on a personal and social comparative outcome. The price fairness literature also identifies

price fairness as a multidimensional construct with different dimensions and effects (Adams 1965; Lind and Tyler 1988). However, the perception of fairness and unfairness are not opposite elements, consequently unfairness might be explicitly experienced as fairness is commonly more imprecise.

The conceptual model of price fairness (Rutte and Messick 1995) begins by evaluating the fairness of the outcome with a reference price, if the evaluation leads to satisfaction the decision process ends. If the evaluation instead causes dissatisfaction, distress is triggered and emotions are induced in the decision process. As a result of the distress, the perceived price is re-evaluated in order to justify the amount unfairness perceived. This phase is identified as the price fairness evaluation in which the consumer either perceived the price as fair or unfair. Perception of fairness leads to purchase the good but in the case of perceived unfairness negative emotions leads to anger and aggressive emotions. These negative emotions might also lead to actions, such as complaining, spreading negative word-to-mouth and even trying to punish or suing the seller. The decision process is further influenced by trust and power.

Various factors influence the price fairness perceptions. The level of resemblance between the transactions is a determinant factor in the decision process and affects the reference price comparison in the beginning of the model. Also, information that justifies a certain price influences the fairness perception in the second evaluation. Previous shopping experiences generate trust between the buyer and seller, thus influencing the fairness perception. Personal knowledge, beliefs and social norms also influence on the price perception.

Reference price

Previous research implies that the reference price is considered as the key aspect when determining the fairness of a price. According to Monroe (1973) the reference price functions as a reference in a consumer's price evaluation. Thus, the comparison process leads to either a low or a high price perception. Perceived value can be defined as a customer's opinion of how much a product or a service is worth. Also, it can be defined as customers' internal feeling of a product's or a service's value. The perceived value is not necessarily related with the market price instead it is closely related to the ability to satisfy the customer needs. Hence, an extensive evaluation should be conducted in order to define a price that is based on its value. In this case the, perceived value is based on reference prices from competitors, consumers often perceive the value lower than the actual market price. The price is considered fair as long as the price is based on the perceived value from a customer perspective (Maxwell 2008). Furthermore, cues influencing this internal evaluations process are focal, contextual and organic (Della Bitta and Monroe 1974; Della Bitta, Monroe and McGinnis 1981).

3. Hypotheses

Our research model brings together the persuasion and sales literature, consumer involvement literature and price fairness literature. The model expresses the effectiveness of social proof and

authority on price fairness under different degrees of consumer involvement at different price levels. Even though, previous research emphasizes the importance of contextual and situational factors in consumer behavior, few attempts have been made to derive effectiveness of influence tactics this way. In addition, exploring effectiveness in the intersection on influence tactics and price fairness has received limited attention.

In online commerce, consumers seek for evidence assuring that the influence tactic used also benefits them, if evidence is found the evaluations process is not affected negatively. However, if consumers perceive that this information instead is utilized to optimize the price, it might affect consumer negatively (Grewal et al., 2004).In traditional pricing theory, higher prices are negatively related to product evaluations, but in price and quality relationships price have shown to play multiple roles (Mitra 1995), and consumers might consider price as a quality indicator and positively related with product evaluations (Monroe 1977; Monroe and Dodds 1988; Monroe and Krishnan 1985).

Therefore the psychological mechanism that utilizes the price cue and the influence tactics might generate different stimuli based on how it utilizes these cues. Thus, the sales presentation is evaluated based on degree of involvement which steers the evaluation processes and the following behavior. Since, the construct of involvement incorporates both ability and motivation to process argumentation, factors influencing motivation should be considered particularly important. Furthermore, since it has been stated that several contextual factors are likely to moderate the effects of price cues, analyzing these factors provides valuable insights for pricing practitioners.

We roughly categorize involvement into high and low involvement according to the high and low elaboration in the ELM. We define involvement as an explanation to an action and connect the different degrees of involvement to different consumer behaviors. It is also worth mentioning that, despite the fact that different forms of involvement and following behaviors exist, we use involvement as one-dimensional variable.

In general, consumers differ in their degree of expertise regarding product properties. Therefore knowledge-based recommender systems have become major contribution to online sales (Zanker 2006). The information regarding the products and services is getting more complex and consumers are forced to rely on shortcuts in terms of psychological sales influence tactics. Furthermore, as also price fairness evaluations are considered highly subjective and related with feelings (Xia, Monroe and Cox 2004), it could be argued that persuasive psychology in terms of sales influence tactics has a large influence on these price fairness evaluations. Consequently, as these influence tactics have shown to be effective both offline and online (Zanker et al., 2006), we propose the following.

Authority
H1: An authority claim is positively related to perceived price fairness

Social Proof
H2: A social proof claim is positively related to perceived price fairness

The price fairness model suggests that (Rutte and Messick 1995), if the outcome of the comparison process is evaluated negatively people feel distress and might experience the price unfair. Consumers seek for evidence for the perceived price inequality, and therefore providing essential product information plays an important role in price fairness evaluations. Since authority and social proof base their argument on cues about the skillfulness of the salesperson and not on elementary information, we propose the following

Price

H3: The interaction of price and authority claim is negatively related to perceived price fairness

H4: The interaction of price and social proof claim is negatively related to perceived price fairness

The sales literature defines effectiveness by matching a suitable sales tactic to a matching buyer orientation. However, as buyers are proved to be complex in nature and consist of many orientations (McFarland et al. 2006) and effects of situational factors and intervening variables have received attention (Belk 1975; Cote and Wong 1985; Fleeson 2001), especially online (Cotte et al., 2006; Goldsmith 2002), it could be argued that effectiveness should also be derived from this perspective. Furthermore, since buyer orientations can be identified by personal features such as, socialization processes, personal features, lifestyles and situational factors (Seth 1976), matching a suitable sales tactic to a suitable degree of consumer involvement would also express effectiveness.

The ELM states that higher elaboration is related with stronger and long lasting persuasive power and persistent to weak arguments. In similar fashion, the SJT states that, high involvement is related with restricted latitude of acceptance (Rhine and Severance 1970), and more unlikely to persuade. Reversely, an individual with a low level of involvement is more likely to accept an idea due to less restricted latitude of acceptance, and according to the ELM, related with weaker persuasive power and a more short-term attitude change. Sales influence tactics such as authority and social proof persuade through the peripheral route of persuasion because they base the argument on cues about the skillfulness of the salesperson.

In the case of highly involved consumers, the impact of cues, such as price and influence tactics are expected to have a minimum impact on the following evaluations. Reversely, as consumers with low involvement are expected to relay on these cues instead of processing essential product related information, we propose the following.

Involvement

H5: The interaction of consumer involvement and price is negatively related to perceived price fairness

H6: The interaction of consumer involvement and social proof claim is negatively related to perceived price fairness

H7: The interaction of consumer involvement and authority claim is negatively related to perceived price fairness

H8: Involvement functions as a predictor of consumer behavior

4. Methodology

4.1 Empirical context

The data was collected from a major Finnish real estate agency's data base. The company brand is well-known and established in the entire country. The company emphasizes the importance of digital sales and has been an early adopter in digital technology by utilizing various online tools and services in their sales and marketing.

Real-estate companies are facing an ongoing transformation process in consumer behavior as the online expansion has been particularly evident within the industry. In order to meet the changing consumer habits, real-estate companies are continuously reasserting their online presence. However, real-estate agents are not considered dispensable even though some former sources of information such as newspapers have been largely abandoned and replaced with new search tools. As e-commerce has become a key component in the real-estate sector, there is an increasing need for new knowledge about best practices within this area. In order to increase online competitiveness, new information about innovative e-selling tactics and value adding processes are needed.

The real-estate sector was chosen for three main reasons. Firstly, buying or selling a home is often one of the most important financial transactions in a consumer's life and nuances in presenting information related to the real-estate agent are expected to affect consumer perceptions and decisions. Secondly, as online services function as an information source, it can also be seen as a value adding mechanism and therefore suitable for research in both price fairness and trust. Thirdly, due to the nature of real-estate business, consumers are expected to follow the market in different degrees, providing a research perspective based on the degree of consumer involvement.

4.2 Sample

A total of 17 904 questionnaires were sent by email with a cover letter. In the cover letter, the respondents were asked to imagine themselves in a purchase situation selecting a real-estate agent to sell their apartment and answer to an attached questionnaire. As an incentive for the respondents, a gift token was prize drawn among the ones who completed the survey. A reminder was sent one week and another two weeks after mailing the questionnaires. Response rate was 8, 29% with 1418 received questionnaires. The sample attributes were as follows: gender, 53% female and 47% male; the average age was 47; 90 % owned their estate; interest in real-estate, 24 % were actively following the real-estate market.

After some missing data diagnosis, the following implications were performed in order to ensure a proper statistical approach. Firstly, list wise deletion was used only in the cases with significant item nonresponse, as a result 1384 completed questionnaires were used in the final analysis, only loosing 2, 3% of the dataset through the data cleaning (final response rate 7, 7 %). Secondly, in order to further improve the statistical power, we performed the Little's MCAR test using SPSS. We got a desired result as we failed to reject the null hypothesis (Little's MCAR test: Chi-Square = 4360,783, DF = 4139, Sig. = 0,008), which implies that the data was missing at random and thus, no identifiable pattern existed to explain the missing data. Thirdly, the rejection of the null hypothesis further enabled us to utilize proper imputation techniques to replace the missing data. We used expectation-maximization algorithm as it is one of the most exact ways to estimate the missing values (Moon 1996, Hartley 1958). As a result, there were no missing values in the final data set and statistical power was maximized.

4.3 Research Design

To investigate how different influence tactics such as authority and social proof influence price fairness and trust, we used a 3 x 4 x 4 between-subject factorial research design. The independent variables were price, that is, principal agent commission rates (1%, 3%, 6%), customer recommendations (3, 15, 27, control) indicating social proof and different levels (low, medium, high, control) of education indicating authority. The different levels of educations were as follows: low, Vocational Qualification in Business Administration combined with a secondary school graduate; medium, Master's degree in Business Administration; high, Master's degree in Business Administration and a licensed real estate agent degree.

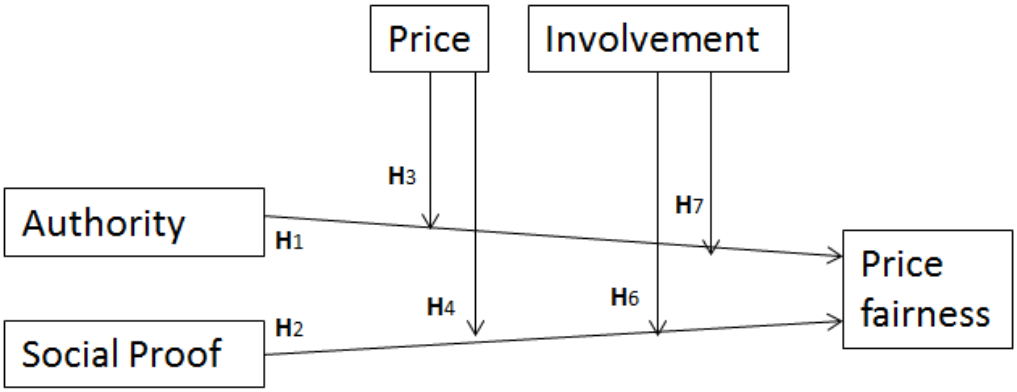

Figure 1. Regression research model.

In order to understand how authority and social proof effect consumer's evaluations under different contextual factors such as price conditions, we decided to run our research model (Figure 1) at every commission rate and compared the results.

Each respondent answered the questionnaire without knowing about the manipulative conditions related to the real-estate agent (see an example condition, Figure 2). Before the evaluative questions, the respondents described their degree of involvement in the current real-estate market by describing how much they follow the market on a Likert-type scale 1 to 7 (1 = totally disagree, 7 = totally agree). To exclude alternative explanations, questions with control variables were also asked but none of the variables had an effect on trust or price fairness.

Figure 2. The principal agent online profile.

The items used in the questionnaire were carefully selected from previous research. Price fairness was measured through several arguments were the respondents evaluated the perceived price fairness associated with the real-estate agent. The items were retrieved from Cambell (1999). Similarly, trust (Henthome et al. 1992) was measured via a series of questions. All of the survey items are presented in Table 1.

Table 1
Measurement scales

Construct	Item	Based on
Price fairness	The price seems fair	Adapted from Cambell 1999
	The agent's motives seems good	
	The agent's motives seems prosocial	
	The price seems higher than normally	
	The agent's profit seems higher than normally	

4.4 Results

Factor analysis of price fairness

Factor analysis was conducted to examine our dependent variable price fairness. In the case of price fairness a two-factor solution was obtained. By using principal axis factoring the construct was

divided into factor 1 with a 31, 5 % of explanatory power and the factor 2 with a 28, 6 % explanatory power. Communalities all loaded above the threshold of 0, 3 (Kline 2014). The rotated factor solution presented in Table 2 suggests that the construct of price fairness can be and large divided into price related (items 1-2) and seller related (items 3-5) factors based the results showed in Table 2.

Table 2
Factor Analysis
(Varimax Rotation)

Items	Price related Factor 1	Seller related Factor 2
1.The profit is higher than normally	0,921	0,156
2.The price is higher than normally	0,691	0,034
3.The motives are good	0,043	0,787
4.The estate agent cares about me	0,099	0,716
5. The price is fair	0,486	0,522

The factor structure in the case of price fairness is clearly divided into two almost equally important factors. As such, it is clearly justified to use these factors as independent variable in our regression analysis enabling to examine the dimensionality of each construct.

Correlation analysis

A correlation analysis (Table 3) was conducted to achieve understanding on the proportionality of the effects. We used the Spearman method as our variables were represented in an ordinal scale.

Table 3
Spearman correlation matrix

Construct	Mean	SD	Price fairness
Price fairness	3,7864	1,2943	1
Price			- 0,598**
Involvement			- 0,078**
Authority			0,017
Social Proof			0,014

** = $p < 0,05$

As expected, price played a determinant role in explaining price fairness (correlation - 0,589, $p <$ 0, 05). However, a bit unexpected consumer involvement also had significant effect on price fairness (correlation - 0,078 $p <$ 0, 05). Authority and social proof did not correlate with price fairness. As the aim of this study is to examine how different influence tactics influence price fairness, further information about the effects of each manipulation is needed.

Moderation effect of price

In order to compare how each manipulation of the influence tactics effects price fairness we used dummy variables in our regression analysis. Although it is irrelevant which of the manipulation level functions as reference category, in some cases the choice of reference category clarifies the interpretation of the result (Grace-Martin 2013). As the manipulation level of "low" seems to have a low mean score in many cases it is also justified to use it as a reference category (Grace-Martin 2013). We used linear regression to analyze the relationship between influence tactics and our dependent variables. Our research model was tested three times as we ran a regression analysis separately at every price level.

Table 4
Linear Regression Analysis

Price range	**Dependent Variable**	**Independent variables**	
		Price fairness	
		Price related	Seller related
Low	**Authority**		
	control	-0,019	0,077
	medium	0,073	0,015
	high	0,077	0,013
	Social Proof		
	control	0,054	-0,014
	medium	0,043	0,001
	high	0,041	0,062
	Involvement	-0,010	-0,087
Medium	**Authority**		
	control	-0,064	-0,042
	medium	-0,053	**-0,111****
	high	-0,089	-0,002
	Social Proof		
	control	-0,037	0,299
	medium	-0,090	0,408
	high	-0,074	0,585
	Involvement	0,002	-0,063
High	**Authority**		
	control	-0,037	-0,021
	medium	-0,072	-0,056
	high	-0,033	0,037
	Social Proof		
	control	-0,060	**-0,140****
	medium	-0,060	**-0,110***
	high	-0,035	-0,092
	Involvement	**-0,125****	**-0,123****

** = $p < 0,05$

* = $p < 0,1$

By looking at Table 4, we can get a good overview of how authority and social proof influence price fairness in the case of a low, medium and high price. In the uppermost section of Table 4, the price was set constant to 1 % whereas authority and social proof were manipulated. The result displays the fact that different manipulations of social proof and authority or involvement are not influencing price fairness.

In the middle section of Table 4 the commission was set to 3 %. In this price range, the influence tactics of social proof or involvement did not show any statistical significance. However, surprisingly the manipulation of medium authority had a negative influence on price fairness (β = -0,11 and $p > 0,05$) compared to control authority which reversely confirms with Hypothesis 1.

In the next analysis, as illustrated in the bottommost section of Table 4, the commission was set to 6 %. Here, an interesting finding was identified as the manipulation level of control social proof had a negative influence (β = -0, 14 and $p < 0,05$) on and the manipulation of medium social proof had a weak negative influence (β = -0,11 and $p < 0,1$) on seller-related price fairness. This finding, expresses the unexpected behavior of the manipulation on low social proof and social proof in general. As predicted, involvement had strong negative influence on both price-related (β = -0,125 and $p < 0,01$) and seller related (β = -0,123 and $p < 0,01$) price fairness (Hypothesis 5). When the price is at the low and medium levels, no statistical significance can be seen. However, as the price increases to 6 % the effect of involvement is negative.

Table 5
Means for Influence Tactic Manipulations

Price range	**Dependent Variable**	**Independent variables**		
		Price fairness		
		Price related	Seller related	N
Low	**Authority**			
	control	5,06 (1,54)	4,41 (1,39)	100
	low	5,13 (1,42)	4,15 (1,30)	101
	medium	5,37 (1,29)	4,20 (1,35)	120
	high	5,38 (1,53)	4,19 (1,33)	113
	Social Proof			
	control	5,34 (1,49)	4,13 (1,29)	94
	low	5,16 (1,45)	4,19 (1,44)	126
	medium	5,28 (1,40)	4,21 (1,31)	105
	high	5,26 (1,45)	4,39 (1,31)	109
Medium	**Authority**			
	control	4,10 (1,30)	3,96 (1,19)	116
	low	4,30 (1,45)	4,07 (1,30)	119
	medium	4,13 (1,52)	3,75 (1,23)	106

	high	4,03 (1,33)	4,06 (1,01)	132
	Social Proof			
	control	4,19 (1,37)	4,04 (1,24)	115
	low	4,30 (1,40)	3,87 (1,09)	119
	medium	4,01 (1,47)	4,00 (1,18)	121
	high	4,07 (1,37)	3,96 (1,24)	118
High	**Authority**			
	control	2,39 (1,46)	2,98 (1,44)	133
	low	2,52 (1,57)	3,04 (1,34)	101
	medium	2,27 (1,46)	2,86 (1,20)	121
	high	2,41 (1,45)	3,16 (1,29)	122
	Social Proof			
	control	2,33 (1,33)	2,85 (1,24)	128
	low	2,54 (1,50)	3,28 (1,39)	109
	medium	2,31 (1,49)	2,93 (1,30)	116
	high	2,41 (1,60)	3,01 (1,32)	124

The result of the previous linear regression analyses explained the significance between different manipulations at a specific price level. Next, the impact of the moderating effect of price on price fairness is further demonstrated. In Table 5, we summarize the mean scores of each manipulation at every price level. As expected and previously shown in the correlation analysis (Table 3), price played a major role in explaining price fairness. The means of social proof and authority (Table 6) clearly shows the negative interaction with price which is also evident in Figure 3, Figure 4, Figure 5 and Figure 6. (Hypothesis 3 and Hypothesis 4).

Also, the insignificance related to price-related price fairness found in the regression analysis, is displayed in Figures 3 and Figure 4, and the significance related to seller-related price fairness which supports H1 and H2 is displayed in Figure 5 and Figure 6.

Table 5 points out the unexpected significance found on low social poof on seller-related price fairness at price level high which also was rated highest on price-related price fairness. As the slopes of low social proof are less steep than the other manipulations, it seems that low social proof was considered less unfair compared to the other manipulations of social proof.

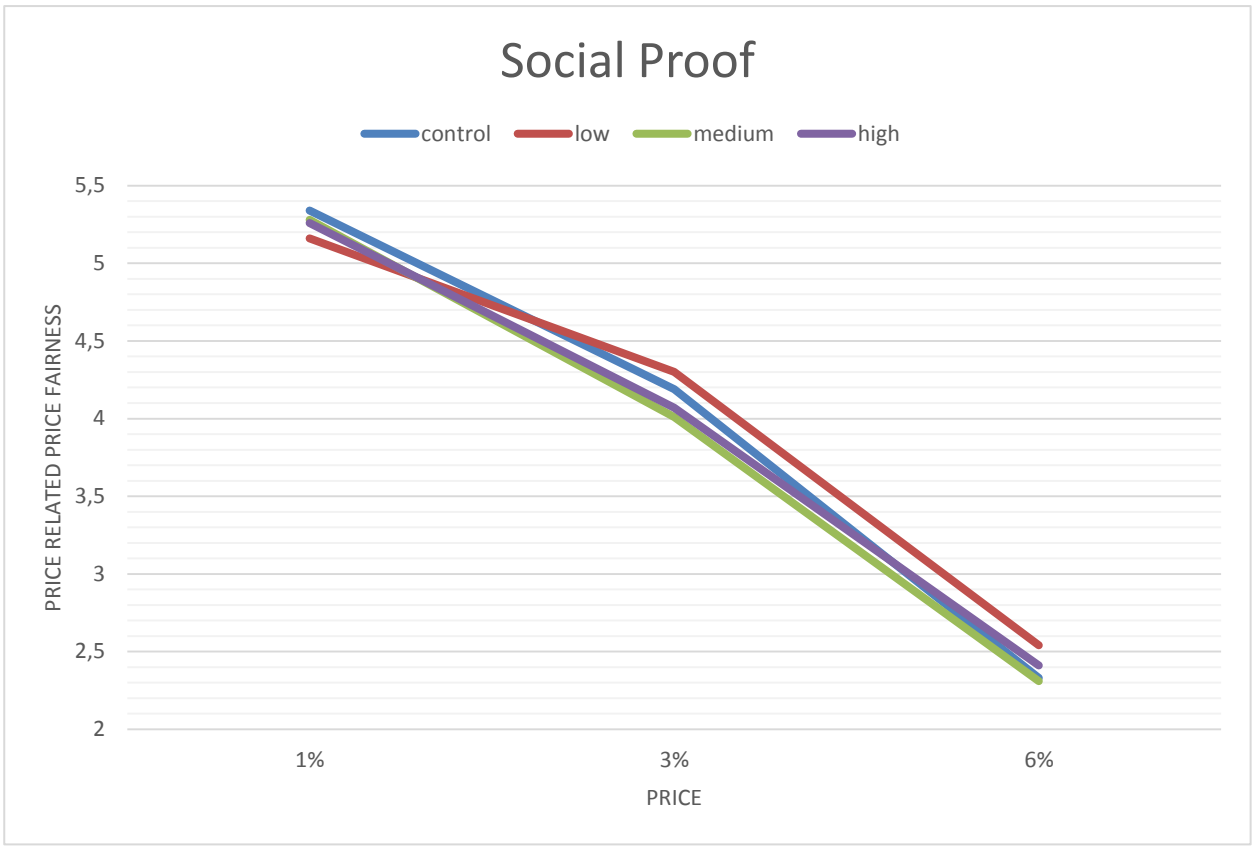

Figure 3. The effect of different price levels and different levels of social proof on price-related price fairness evaluations.

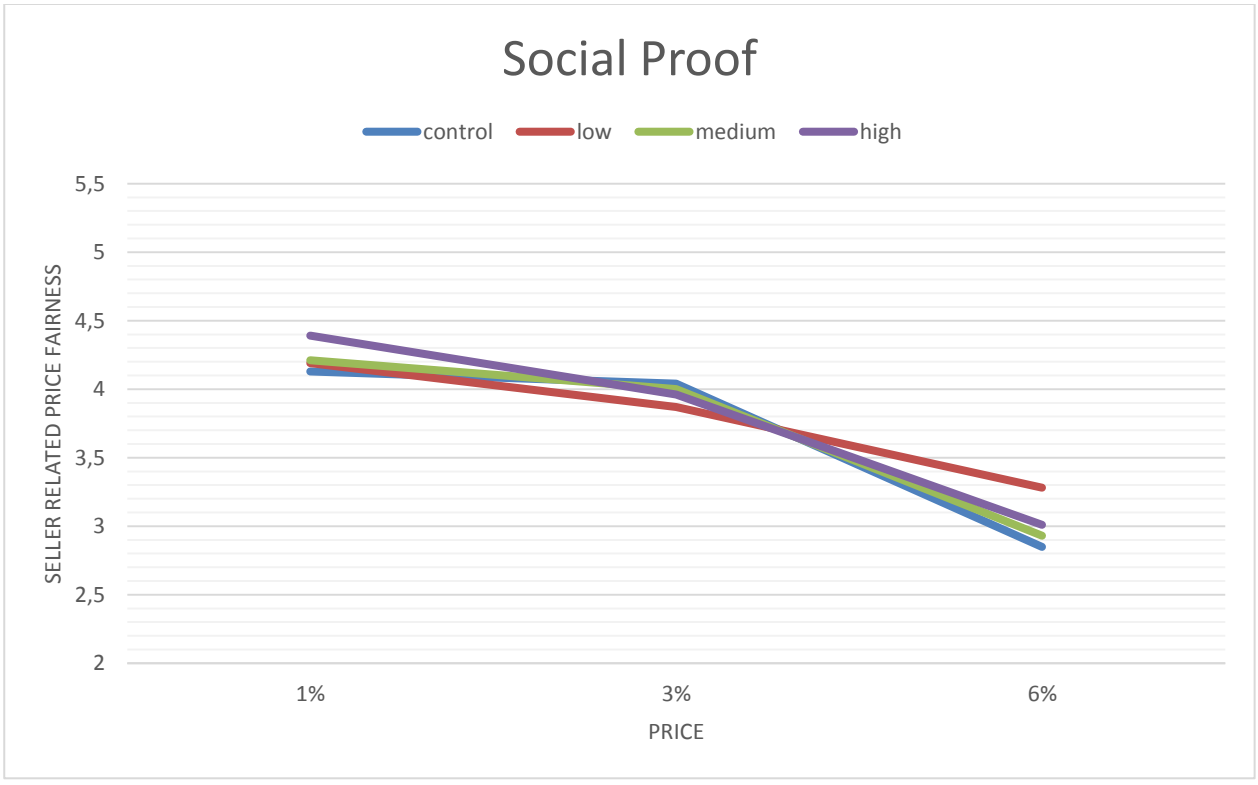

Figure 4. The effect of different price levels and different levels of social proof on seller-related price fairness evaluations.

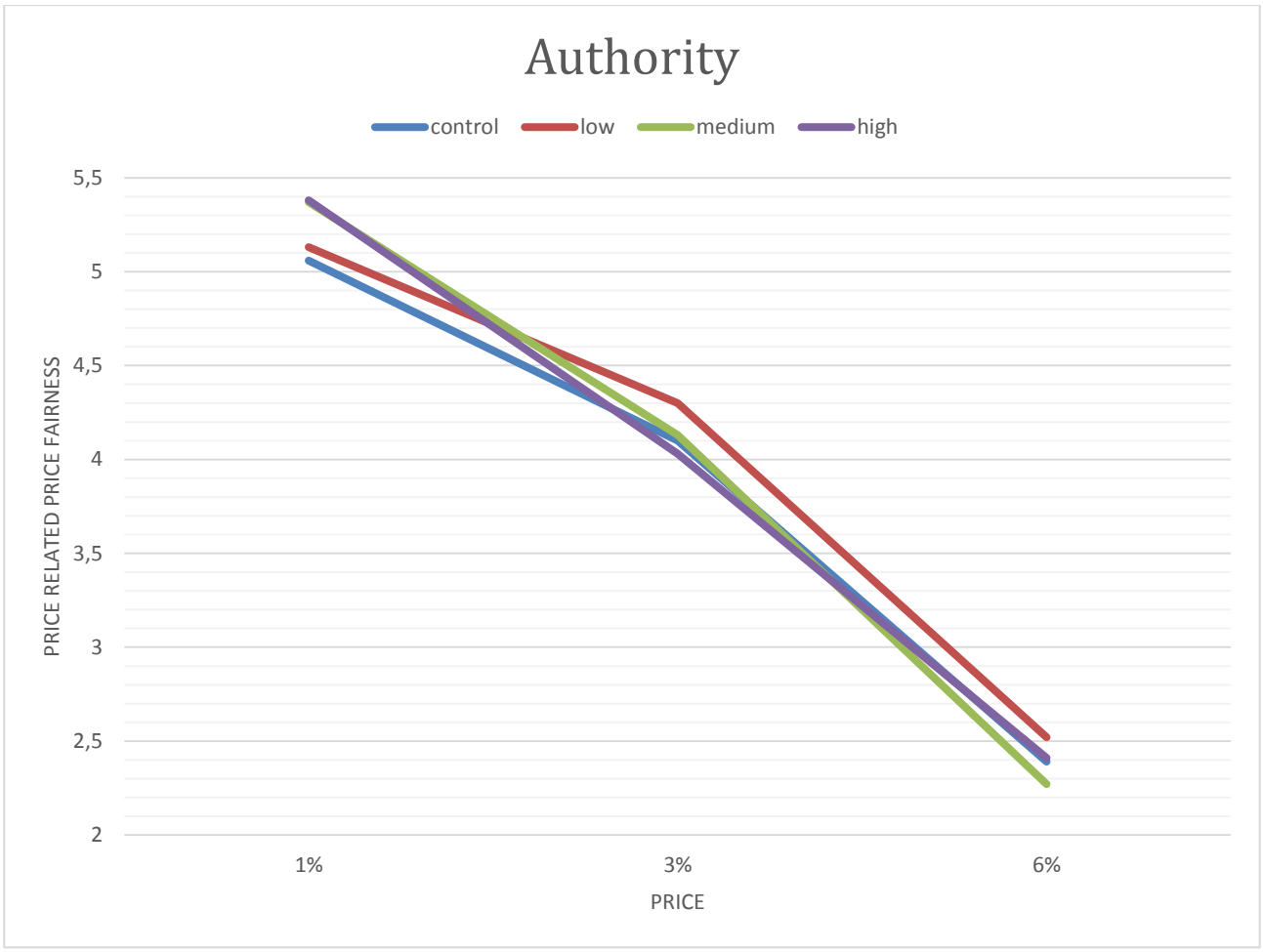

Figure 5. The effect of different price levels and different levels of authority on price-related price fairness evaluation.

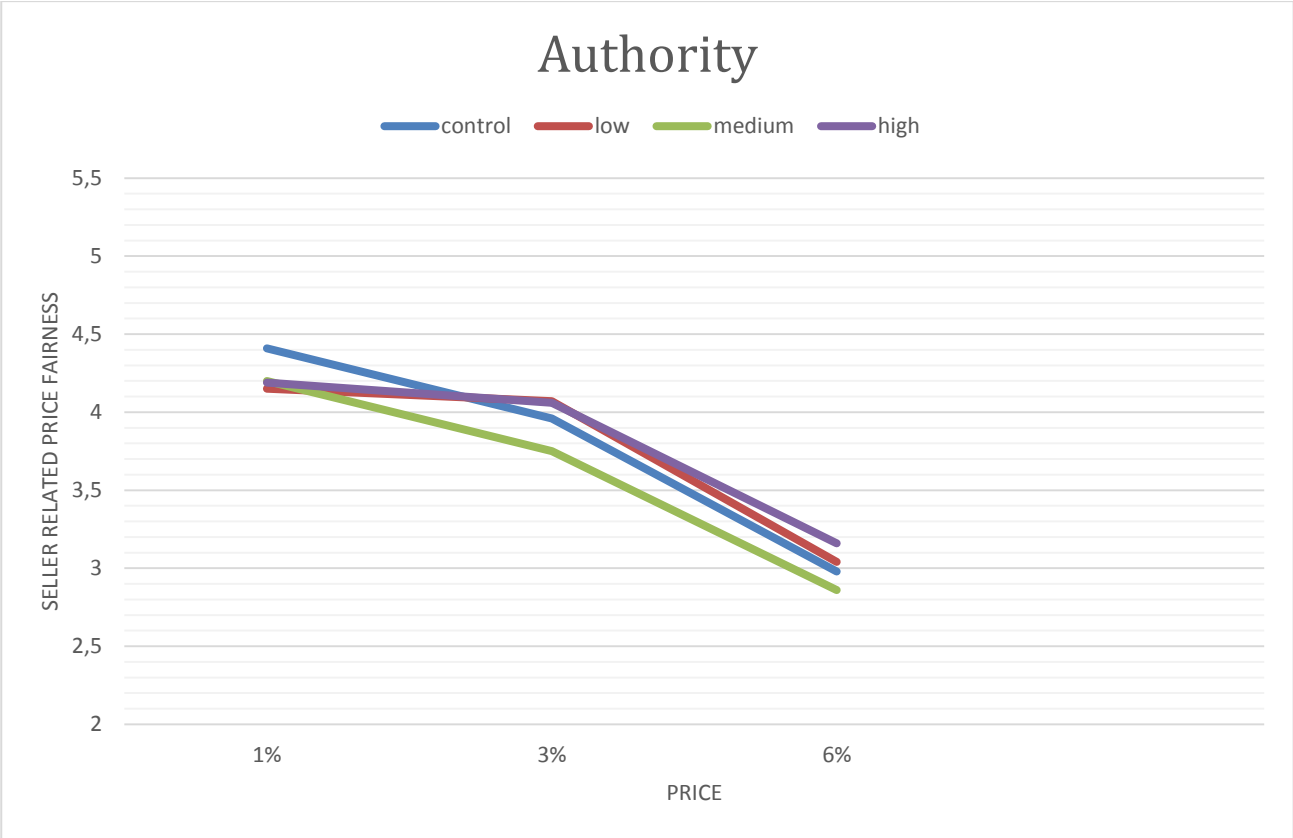

Figure 6. The effect of different price levels and different levels of authority on seller-related price fairness evaluations.

The moderation effect of involvement

Next, we investigate how involvement moderates the relationship between influence tactics and price fairness at the price level of medium as it represents a standard price in the market. We used high authority and high social proof to investigate how the moderation effect of involvement. Further, as the strong negative or positive effect on price fairness of either high or low price is eliminated, the result should provide valuable insights and practical recommendations for situations where price levels are not easily changed or modified. In this study, the aim is to investigate the moderation effect of involvement and therefore we use the whole construct of price fairness as our outcome variable.

Table 6
Linear regression moderation analysis

Involvement	**Dependent Variable**	**Independent variable** Price fairness
Low, N=89	**Authority**	
	high	0,6041
	involvement	0,2414

	moderation effect	0,1223
	Social Proof	
	high	0,1495
	involvement	0,4497
	moderation effect	**0,0120****
High, N=331	**Authority**	
	high	0,9091
	involvement	0,2740
	moderation effect	0,8139
	Social Proof	
	high	0,5605
	involvement	0,2752
	moderation effect	0,5577

Linear regression based moderation analysis was conducted to examine the moderation effect of involvement (Hayes 2013). To test our hypotheses related to involvement, we constructed two new variables, by dividing the involvement variable (Likert-scale 1-7) into two new variables: *low involvement* (responses less than 4) and *high involvement* (responses higher than 4).

In Table 6 on moderation effect regarding high involvement and the influence tactics was found. However, regarding low involvement and social proof ($\beta = 0, 3392$ and $p < 0, 05$) moderation was found (Hypothesis 6) whereas low involvement and authority did not show any significance. The moderation between social proof and low involvement is also displayed in Figure 6 and Figure 7, in which a low level of involvement and a high level of social proof responded to higher price fairness.

Next, let us look at the figures in order to achieve an overview on the moderation effect of involvement at different price levels, we start by a analyzing the figures presenting the moderation effect. This relationship is displayed in Figures 7 - 11 where the influence of authority and social proof changes based on the degree of involvement. The figures reveal the already acknowledged fact also proved in the previous study that price fairness is highly dependent on the price, but it also shows the negative interaction of involvement and price (Hypothesis 5).

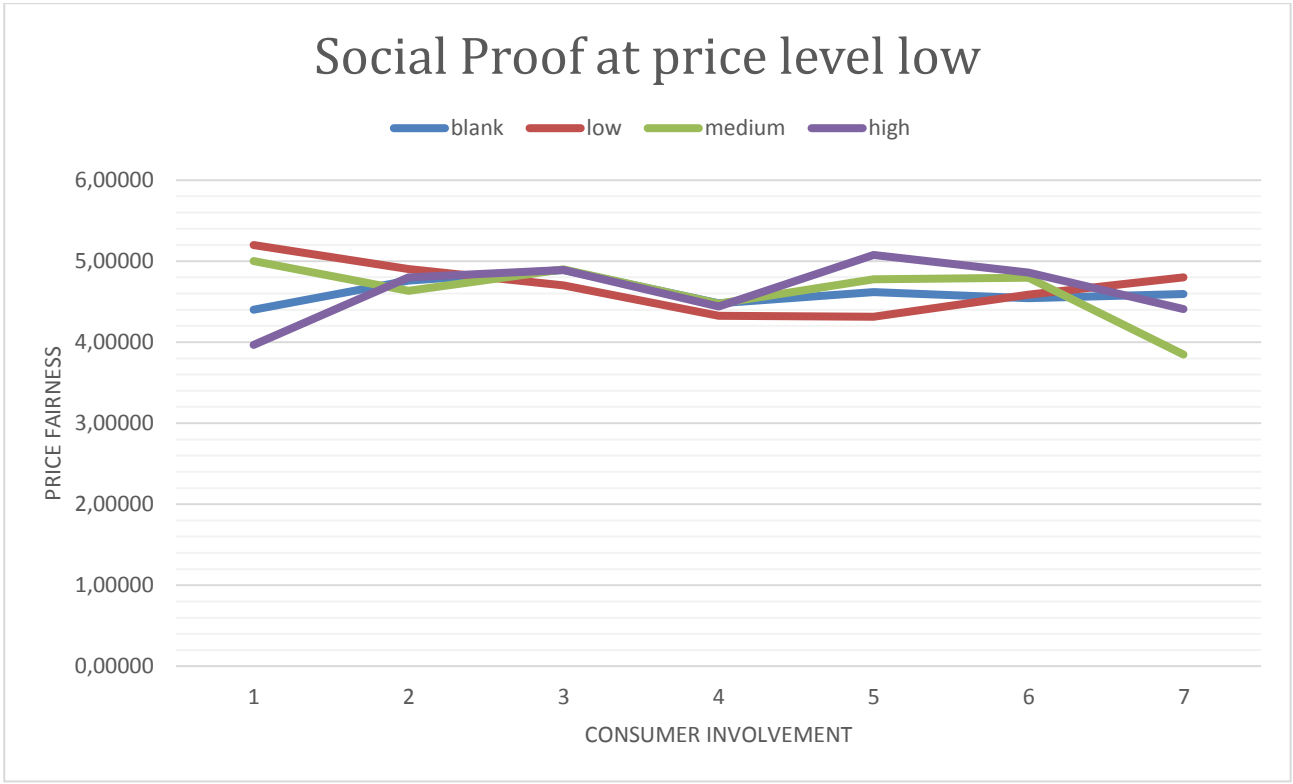

Figure 7. The effects of different degrees of consumer involvement and social proof on price fairness at price level low.

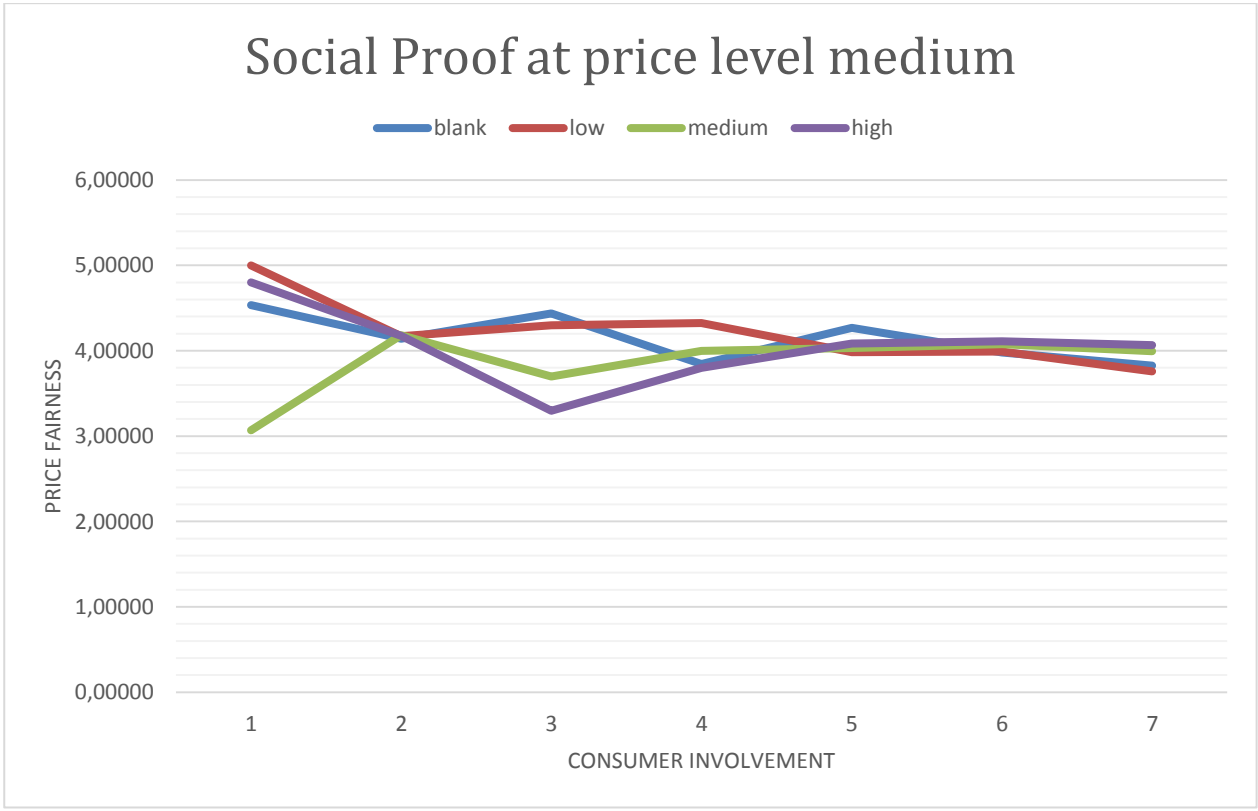

Figure 8. The effects of different degrees of consumer involvement and social proof on price fairness at price level medium.

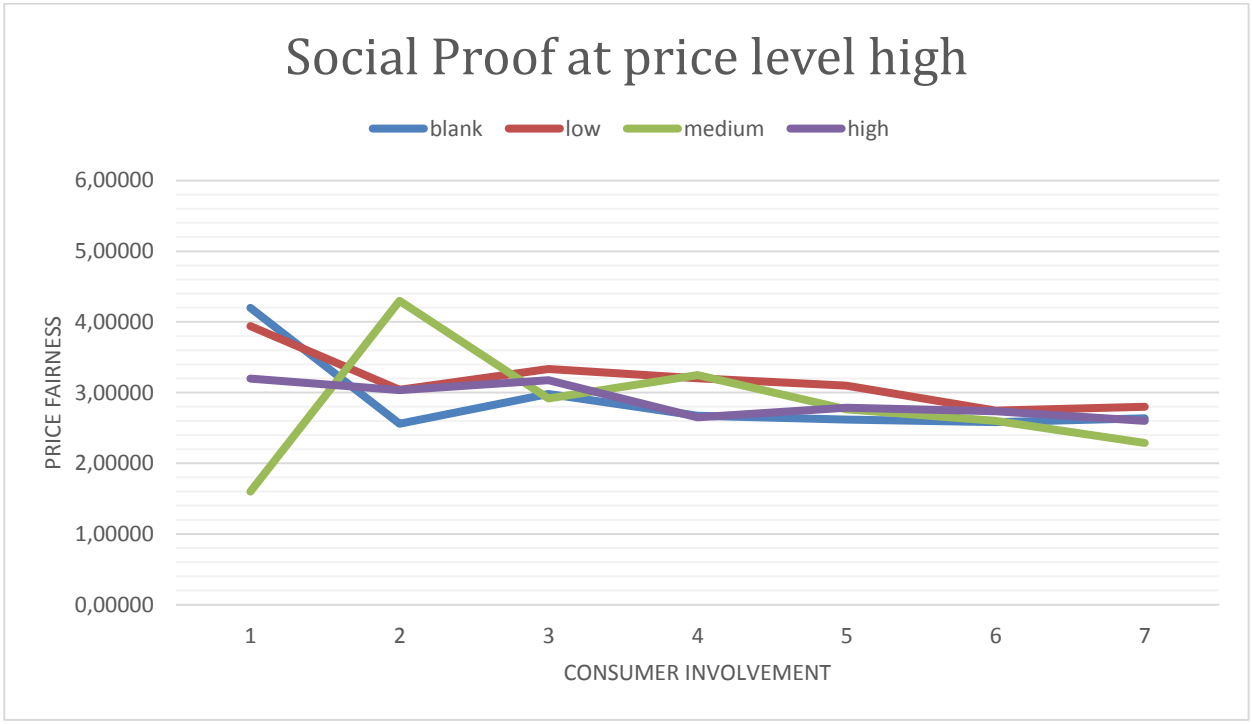

Figure 9. The effects of different degrees of consumer involvement and social proof on price fairness at price level high.

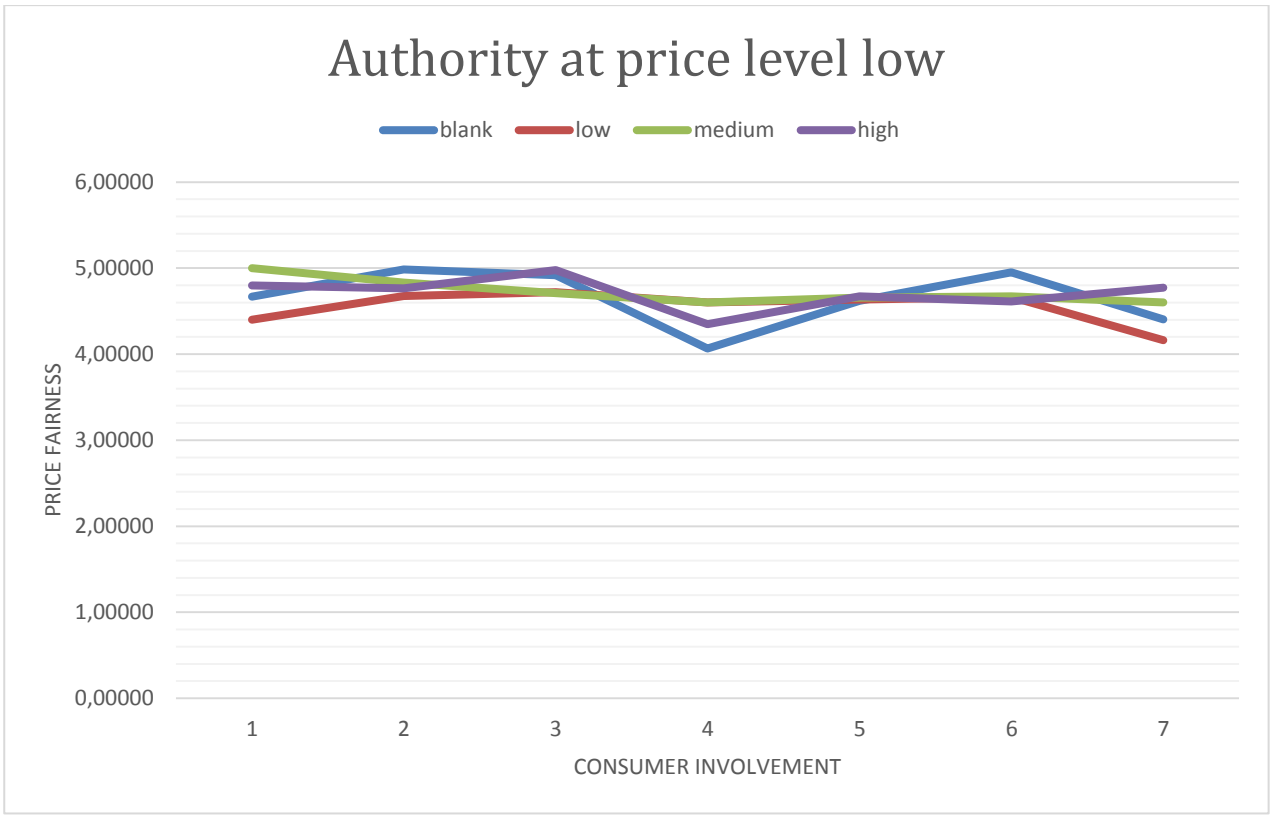

Figure 10. The effects of different degrees of consumer involvement and authority on price fairness at price level low.

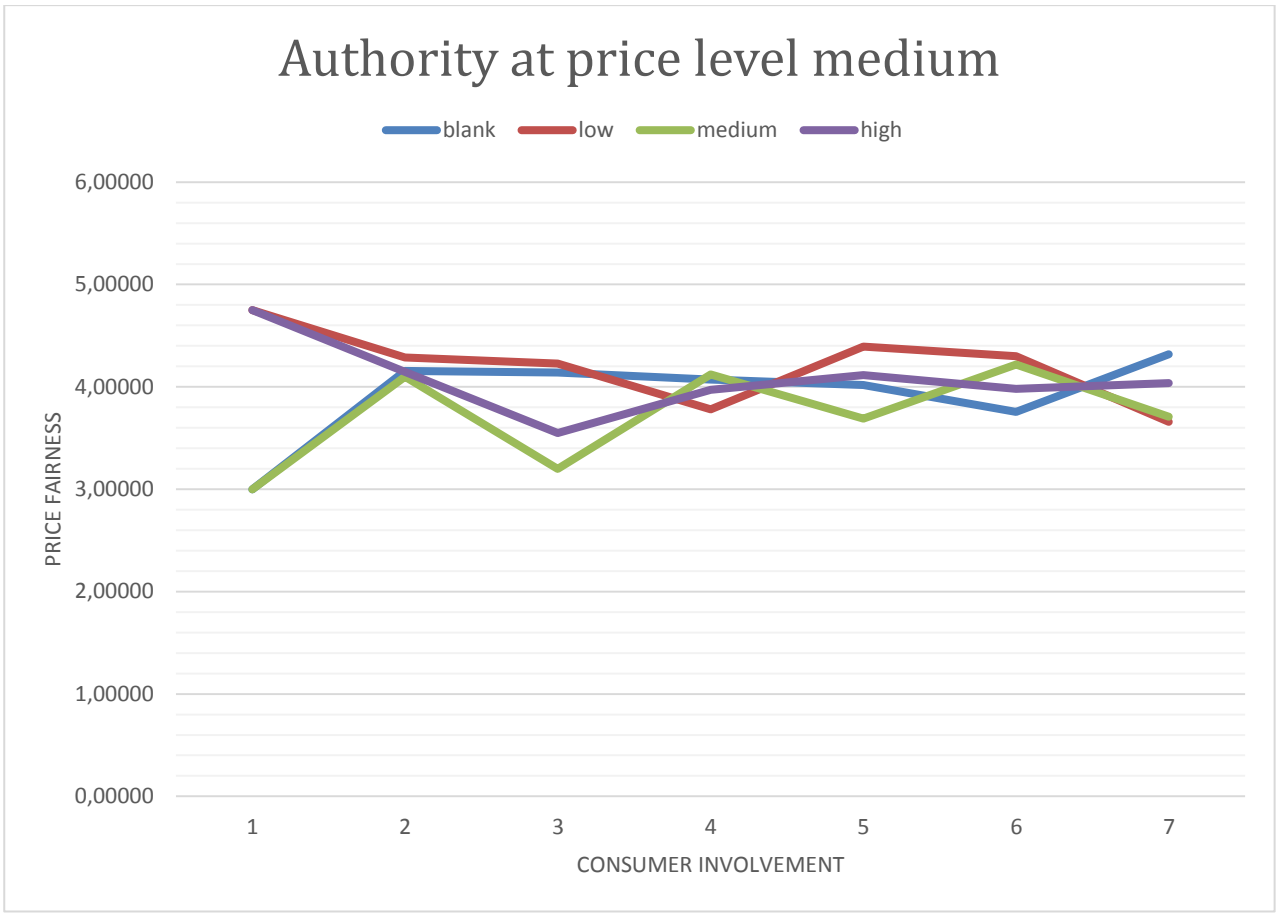

Figure 11. The effects of different degrees consumer involvement and authority on price fairness at price level medium.

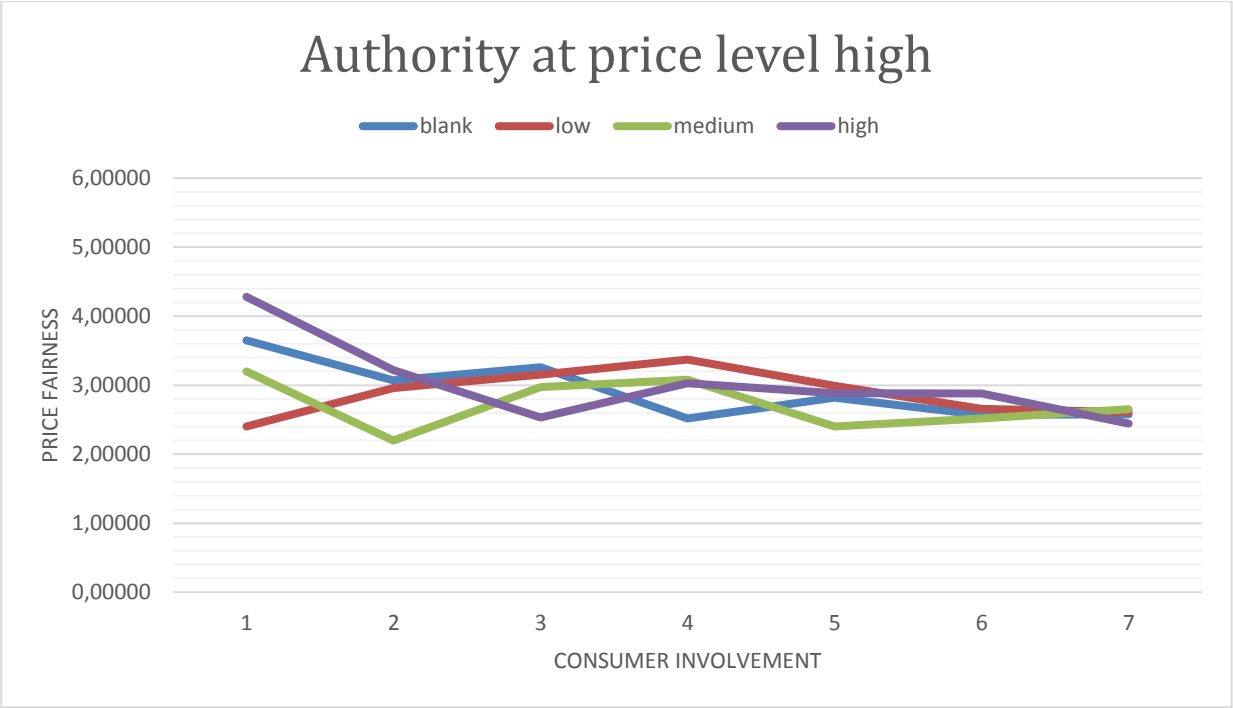

Figure 12. The effect of different degrees of consumer involvement and authority on price fairness at price level high.

However, the figures also demonstrates how price fairness changes as a function of involvement and the influence tactics, indicating that this interaction also plays an important role in explaining price fairness. One of the key finding is displayed in the figures where the manipulations of both authority and social proof are narrowing closer as the involvement is increasing. Suggesting that as the involvement increases the effect of authority and social proof decreases accordingly, thus supporting the finding in the previous analysis in Table 6 (Hypothesis 8). This is particularly evident at the price levels of medium and high where the figures display the importance of involvement.

5. Discussion

The results of this research offer several interesting insights into the interaction mechanism that influence price fairness evaluations. In the first phase of the study, the effect of authority and social proof on price- and seller-related price fairness was analyzed under different price levels.

Firstly, the effects of social proof and authority showed a clear polarization on the dimensionality of price fairness only influencing the seller-related price fairness. We propose a clear conceptual distinction which also confirms with the price fairness literature (Adams 1965; Lind and Tyler 1988).

Secondly, the non-significant relationship between influence tactics and price-related price fairness. This major finding suggests that, consumers of the real-estate market are not receptive to persuasive

attempts. In the case of authority and social proof, the persuasive power should be further reinforced with titles (e.g. education) and with the number of people who share the same initiative. However, no significance on price-related price fairness was found at any price levels. It seems to be that the psychological principles of compliance are not influencing consumers at the real-estate market. These results are consistent with SJT where highly involved individuals are more likely to reject an idea due to restricted latitude of acceptance. Furthermore, the SJT also emphasize the difficulty related to persuasion. Even though, these influence tactics have shown to be effective both offline and online (Zanker et al., 2006; Cialdini 2001), one explanation to our result is that, the degree, form and the effects of consumer involvement differs by product and service categories (Zaichkowsky 1989; Spangenberg and Crowley 1996).

Thirdly, however, against our expectation, social proof and authority showed a negative effect on seller-related fairness. For example, Xia, Monroe and Cox (2004) showed that, consumer are aware of unfairness when they experience it, but consider it difficult to evaluate what is fair. Also, evidence and understanding of why the price was set plays an important role in price fairness evaluations (Bolton, Warlop and Alba 2003). The negative effect of social proof and authority supports these findings and it seems to be that no evidence for the price increase was found and the sales presentation was perceived incredible and unfair. These results are also consistent with ELM's central route where attitude change is based on a diligent consideration of issue-relevant information, but in the case of a unfavorable exposed messages an opposite effect (boomerang effect) occur. One explanation to this would be that consumers on the real-estate market might be highly involved compared to other sectors. Furthermore, the seller's profit motives affect these evaluations (Bolton, Warlop and Alba 2003), and if no explanation to the perceived inequitable price is provided the seller is considered responsible which might explain why the effects of influence tactics behaved in a reverse direction. Our findings support these theoretical notions and explain why the negative effect is targeted to the seller-related dimension of price fairness. Consequently, we are not capable of providing support for using either social proof or authority based on the manipulation or the price level. Instead, we provide information about avoidable contexts and identifying factors influencing unfairness.

In the second phase of the study, the effectiveness of the influence tactics was investigated under different degrees of involvement at price level medium. In the moderation analysis, the non-significant effects of authority and social proof under high involvement supported the theories of the SJT (Sherif and Hovland 1980) in which highly involved individuals are more likely to reject an idea due to more restricted latitude of acceptance. On the contrary, influencing price fairness via the interaction of social proof and low involvement showed reliable recommendations. The significance found between social proof and low involvement supports the ELM where lowly involved individuals are persuaded through simple affective argumentation and social cues. Furthermore, at low levels of involvement the effects of the influence tactics seemed to behave haphazardly also supporting the ELM as low elaboration shapes the persuasiveness in terms of unstable and short-term attitude changes.

At the price level high, regardless of the influence tactic or their level, the interaction of involvement and price solely generated the effect of perceived price fairness. Thus, displaying the

non-significance effects of these tactics but also supporting theories regarding high involvement and attitude persistency also functions as a more reliable predictor of consumer behavior (Sherif and Hovland 1980), and should also be considered as one of the key findings of this research. On the opposite, a remarkably low price strongly influence price fairness evaluations and eliminates the influence of involvement and the influence tactics.

Our findings in the second phase allows a two-folded interpretation, where low (Petty and Cacioppo 1986) and high involvement (Sherif and Hovland 1980) support different research traditions. We provide support for using social proof on lowly involved consumers and identify high involvement as predictor of consumer involvement.

In sum, the results also display consumer sensitivity in terms of price unfairness. Therefore influencing seller-related price fairness should be done with caution also supporting Hancock and Dunham (2001)'s study which stated that impressions are more intense in CMC than in a face-to-face environment. Similarly, Pickett, Gardner and Knowles (2004) found that *cues* plays a determinant role in online persuasion and online vendors are considered uncertain compared to face-to-face purchases (Metzger 2006). Consequently, our findings reflect those of Parvinen et al (2014) where selling as an activity can destroy as much or more customer value than it generates.

The present research shows that, consumer and especially the ones who follow the real-estate market closely are not receptive to persuasive attempts and using influence tactics might also affect price fairness evaluations negatively. One explanation to this phenomenon would be that consumers on the real-estate market may have a generally higher degree of involvement than consumers in general. High motivation to process arguments might result from fact that, selling a home is often one of the most important financial transactions in a consumer's life and therefore not relying on influence tactics that utilize these psychological principles of compliance.

6. Managerial implications

Managers are interested about the effective tactics and avoidable tactics. Previous sales literature has identified effectiveness of influence tactics based on the buyer orientations. However, this study provides valuable insights and advices into the effectiveness discussion of influence tactics. Our findings demonstrate that effectiveness should also be derived from price and involvement, and suggest a few managerial challenges and recommendations accordingly.

Firstly, the non-significant relationship between these tactics and price fairness should be considered as the main challenge which might imply that the sales presentation lack the essential information needed. It could be assumed that, consumers are not allowing themselves to be distracted by these tactics as their motivation to process issue-related information is high, and instead seeking for issuer-relevant information. Furthermore, as high degrees of social proof and authority showed a reversed effect at medium price levels, it could be argued that marketers should avoid the use of these tactics in such conditions, as the total credibility of the offering is threaten.

In these context sellers should focus on providing essential information instead of adding titles or recommendations on these peripheral cues as a reversed effect might occur. Choi and Salomon

(2003) criticized the duality in ELM, by saying that people should be considered as multi-channel processors thus, also able to choose the both routes of persuasion simultaneously. This implies that, sales presentations with a task orientation could be featured with these influence tactics, or vice versa. Therefore, controlling the relationship between cognitive and affective argumentation in proportion to the degree of consumer involvement might determine the power of persuasion and the answer to persuade these highly involved consumers.

Furthermore, highly involved consumer has higher attitude persistency and resistance to counter argumentation which enables accuracy in predicting consumer behavior (Petty and Krosnick 2014). This can also be seen as consumer loyalty and implies that they should be influenced differently.

Secondly, the results of the consumer involvement analysis showed reliable recommendations and suggested that, social proof should be used to influence consumer with low involvement. However, this is managerial challenge as managers rather seek for long-term consumer relationships but using influence tactics seems to provide rather short-term effects.

Managers are interested in pricing as it has a high impact on profitability. Therefore the found price sensitivity implies that in the real-estate market, the most important advice would be to ensure credibility, transparency and an ethical approach in sales presentations.

7. Limitations and Future research

We acknowledge the limitations of our research related to the research method. The intersection of influence tactics and price fairness is a rather unexplored research area and thus challenging from a research perspective.

The manipulation of medium authority which responded to a Master's degree in Business Administration is considered unreliable compared to the other manipulations of authority. One explanation to this might be the perceived difference between the degrees of education, as high authority included the same Master's degree and a licensed real estate agent degree, thus providing field specific information. This finding indicates that the manipulations of both high and medium authority are perceived quite opposite and signals that the effects of the different degrees of education are very non-linear. Therefore, the effects of authority should be considered with caution and not compared directly to the effects of social proof as it follows a numerical scale. Future research could investigate in the scales of these tactics by expanding the manipulation scale. For example, the reverse behavior of social proof could be examined by adding further recommendations to these cues. This would advance the understanding of this phenomenon.

Also the role of the price cues should be considered with caution as it is significantly lower and higher than the average price. Therefore, using a different price scale would provide valuable insight into the price sensitivity discussion.

Various techniques have been used in studying involvement, for example assigning subjects to high or low involvement with background information that either increase or decrease the degree of

motivation. In this research, subjects were simply asked to determine the degree of the involvement themselves. This approach might not be the most accurate, as subjects have limited abilities to evaluate or identify his or her degree of motivation. Furthermore, we acknowledge the fact that different forms, sources and effects of involvement exist. However, we use involvement as one-dimensional variable. Therefore, by applying different methods to determine the degree of involvement and studying different forms of involvement would add valuable knowledge into the effectiveness discussion of influence tactics and further provide new segmentation strategies based on involvement.

The research data was collected from real estate agency's data base. However, the real-estate sector represents a rather unique position in e-commerce as buying or selling a home is often one of the most important financial transactions in a consumer's life and therefore limiting the generalizability.

8. References

Ahearne, Michael, Thomas W. Gruen, and Cheryl Burke Jarvis (1999), "If Looks Could Sell: Moderation and Meditation of the Attractiveness Effect on Salespersons Performance," *International Journal of Research in Marketing,* 16 (December), 269-84

Brown, Steven P. (1990), "Use of Closed Influence Tactics by Salespeople: Incidence and Buyer Attributions," *Journal of Personal Selling & Sales Management*, 10 (Fall), 17-29

Bolton, L. E,. Warlop, L,. & Alba, J. W. (2003), "Consumer perceptions of price (un)fairness". *Journal of Consumer Research*. 29(4), 474-491

Belk, Russell W. "Situational variables and consumer behavior." Journal of Consumer research (1975): 157-164.

Bente Gary and Baptist Odile and Leuschner Haug (2011), "To buy or not to buy: Influence of seller photo and reputation of buyer trust and purchase behavior", *International journal of human-computer studies,70,1-13*

Cacioppo, John T and Richard E. Petty. 1979. "Attitudes and cognitive response: An electrophysiological approach," *Journal of Personality and Social Psychology* 37.12

Castells, M. (2011). The rise of the network society: The information age: Economy, society, and culture (Vol. 1). John Wiley & Sons.

Castells, M. (2007). Mobile communication and society. Mit Press.

Choi, Sejung Marina and Charles T. Salmon. 2003. "The Elaboration Likelihood Model of persuasion after two decades: A review of criticisms and contributions," *The Kentucky Journal of Communication* 22.1: 47-77.

Cialdini, Robert B. (1993). Weapons of Influence. In: *Influence: the psychology of persuasion*. New York: John Wiley & Sons. 1-16.

Cialdini, Robert B. (2001), " Harnessing the Science of Persuasion", *Harward Business Review- October*.

Cialdini, Robert B., and Noah J. Goldstein. "Social influence: Compliance and conformity." Annu. Rev. Psychol. 55 (2004): 591-621.

Cohen, Joel B. 1983. "Involvement and You-1000 great ideas," 10: 325-328

Corritore, C.L., Kracher, B., Wiedenbeck, S., 2001. Trust is the online environment. In: Smith, M.J.,Salvendy,G.,Harris, D.,Loubeck,R.J(Eds.), Usability Evaluation and Interface Design: Cognitive Engineering, Intelligent Agents and Virtua Reality. Lawrence Erlbaum Associates, Mahwah, pp.154-1552

Joseph A. Cote Jr. and John K. Wong (1985) ,"The Effects of Time and Situational Variables on Intention-Behavior Consistency", in NA - Advances in Consumer Research Volume 12, eds. Elizabeth C. Hirschman and Moris B. Holbrook, Provo, UT : Association for Consumer Research, Pages: 374-377.

Cotte, June, et al. "Pleasure or utility? Time planning style and web usage behaviors." Journal of Interactive Marketing 20.1 (2006): 45-57.

Cummings,W.T. and Ostrom,L.L (1982), "Measuring price thresholds using social judgment theory". *Journal of the Academy of Marketing Science*, 10, 395 – 409

Dempster, Arthur P., Nan M. Laird, and Donald B. Rubin. "Maximum likelihood from incomplete data via the EM algorithm." Journal of the Royal statistical Society 39.1 (1977): 1-38.

Engel, J.F. and R.D. Blackwell. 1982. "Consumer behavior," New York

Fennell, G., Allenby, G. M., Yang, S., & Edwards, Y. (2003). The effectiveness of demographic and psychographic variables for explaining brand and product category use. Quantitative Marketing and Economics, 1(2), 223-244.

Fishbein, Martin. "An investigation of the relationship between beliefs about an object and the attitude toward that object." Human relations (1963).

Fogg, B. J. "Mass interpersonal persuasion: An early view of a new phenomenon." Persuasive Technology. Springer Berlin Heidelberg, 2008. 23-34.

Fogg, B.J. (2002), "Persuasive technology: Using Computer to Change What We Think and Do"

Fogg, B.J (2009), "The Behavior Grid : 35 Ways Behavior Can Change"

Fogg, B.J. (2002a). Prominence-Interpretation Theory: Explaining How People Assess Credibility. A Research Report by the Stanford Persuasive Technology Lab. Available at www.captology.stanford.edu/PIT.html

Fogg, B.J., Marshall, J., Laraki, O., Osipovich, A., Varma, C., Fang, N., Paul, J., Rangnekar, A., Shon, J., Swani, P., & Treinen, M. (2001). What makes Web sites credible? A report on a large quantitative study. Proceedings of CHI'01, Human Factors in Computing Systems, 61-68.

Forgas, Joseph P. (1995),"Mood and Judgement: The Affective Infusion model (AIM), "Psychological Bulletin, 117 (1), 39-66

Frazier, Gary L. and John Summers (1984), "Interfirm Influence Strategies and Their Application within Distribution Channels",Journal of marketing,48(Summer) 43-55

Frazier, Gary L. and Rody Raymond C. (1991), “The Use of Influence Strategies in Interfirm Relationships in Industrial Channels,” Journal of Marketing, 55(January) 52-69

Fleeson, William. "Toward a structure-and process-integrated view of personality: Traits as density distributions of states." Journal of personality and social Psychology 80.6 (2001): 1011.

Giese, Joan L., Eric R. Spangenberg, and Ayn E. Crowley. 1996. "Effects of product-specific word-of-mouth communication on product category involvement," *Marketing Letters* 7.2: 187-199

Gendel-Guterman, Hanna, and Shalom Levy. 2013. "Does consumers' personal involvement have an influence on store brand buying proneness?." *Journal of Consumer Marketing* 30.7: 553-562.

Goldsmith, Ronald E. "Explaining and predicting consumer intention to purchase over the internet: an exploratory study." Journal of Marketing Theory and Practice (2002): 22-28.

Grewal, Dhruv, David M. Hardesty, and Gopalkrishnan R. Iyer. "The effects of buyer identification and purchase timing on consumers' perceptions of trust, price fairness, and repurchase intentions." Journal of Interactive Marketing 18.4 (2004): 87-100.

Greenwald, Anthony G. 1968. "Cognitive learning, cognitive response to persuasion, and attitude change." Psychological foundations of attitudes, 147-170.

Guadagno, Rosanna, and Robert Cialdini. "Online persuasion and compliance: Social influence on the Internet and beyond." The social net: Human behavior in cyberspace

Hayes, Andrew.,Process procedure for SPSS,2013, The Ohio State University, www.afhayes.com

Haney, Craig, W. Curtis Banks, and Philip G. Zimbardo. "Study of prisoners and guards in a simulated prison." Naval Research Reviews 9.1-17 (1973).

Hartley, Herman. "Maximum likelihood estimation from incomplete data." Biometrics 14.2 (1958): 174-194.

Heitmann Andreas, Herrmann Mark and Peine Klaus (2009), “Getting a feel for price Affect: A Conceptual framework and Empirical Investigations of Consumers’ Emotional Responses to Price Information.” *Psychology and Marketing*.26(1): 39–66 (January 2009)

Hovland, Carl I. 1951."Changes in attitude through communication." *The Journal of Abnormal and Social Psychology* 46.3: 424.

Hovland, Carl I.; Sherif, Muzafer (1980). *Social judgment: Assimilation and contrast effects in communication and attitude change*. Westport: Greenwood. ISBN 0313224382.

Hinterhuber, A and Liozu, S. (2013). Innovation in B2B Pricing. In: *Innovation in Pricing*. 711 Third Avenue,New York,NY 10017: Routledge. 131-150.

Kaptein, Maurits, Petri Parvinen, and Essi Poyry. "Theory vs. Data-Driven Learning in Future E-Commerce." *System Sciences (HICSS), 2013 46th Hawaii International Conference on*. IEEE, 2013.

Kline, Paul. *An easy guide to factor analysis*. Routledge, 2014.

Kelman, Herbert C. 1958. "Compliance, identification, and internalization: Three processes of attitude change." Journal of conflict resolution: 51-60

Laurent, Gilles, and Jean-Noel Kapferer. 1985. "Measuring consumer involvement profiles." Journal of Marketing Research (JMR) 22.1

Lichtenstein,D.R and Bloch,P.H and Black,W.C. (1988),"Correlates of price acceptability", *Journal of Consumer Research, 15, 243–252.*

Grace Martin, K., "Strategies for Choosing the Reference Category in Dummy Coding". 2014, http://www.theanalysisfactor.com/

Maxwell, S. (2008). So how is a Company Supposed to Price Fairly. In: *The Price is Wrong*. New Jersey: John Wiley & Sons. 165-178.

Maxwell, S (2008b). *The price is wrong!* Hoboken, NJ, Wiley publications.

McFarland, Richard G, Challagalla. Goutam N and Tasadduq A. Shervani (2006), " Influence Tactics for Effective Adapting Selling," *Journal of Marketing*,70(October) 103-117

Metzger, M.J., 2006. Effects of site, vendor, and consumer characteristics on web site trust and disclosure. Communication Research 33,155-179.

Mitchell, Andrew A. "Involvement: A potentially important mediator of consumer behavior." Advances in consumer research 6.1 (1979).

Mitra, A. (1995). Price cue utilization in product evaluations: the moderating role of motivation and attribute information. Journal of Business Research, 33(3), 187-195.

Milgram, Stanley. "Behavioral study of obedience." The Journal of Abnormal and Social Psychology 67.4 (1963): 371.

Mittal, Banwari. 1982. "Understanding the bases and effects of involvement in the consumer choice process," Diss. University of Pittsburgh

Mittal, Banwari, and Myung-Soo Lee. 1989. "A causal model of consumer involvement." *Journal of economic psychology* 10.3: 363-389

Monroe, K. B. (1973) Buyers' subjective perception of price. Journal of Marketing Research, 8(2), 248-250

Montgomery, Alan and Michael Smith (2009), "Prospects for Personalization on the Internet," *Journal of the Interactive marketing*, 23, 2, 130-7

Moon, Todd K. "The expectation-maximization algorithm." Signal processing magazine, IEEE 13.6 (1996): 47-60.

O´Neill, Regina M. and Lambert, David R (2001),"The Emotional Side of Price", *Psychology and Marketing*. 8(3):217–237(March2001)

Park, Do-Hyung, Jumin Lee, and Ingoo Han. *"The effect of on-line consumer reviews on consumer purchasing intention: The moderating role of involvement." International Journal of Electronic Commerce 11.4 (2007): 125-148.*

Parvinen, P., Oinas-Kukkonen, H, and Kaptein, M. "E-selling: Conceptualizing Through Human Immersion." 2014

Parvinen Petri, Kaptein Maurits and Pöyry Essi (2012), "Data-driven vs. Theory driven Approaches to e-selling", *International Conference on Management and Artificial Intelligence 2012*

Petty, Richard E and John T. Cacioppo. 1986. *The elaboration likelihood model of persuasion,* Springer New York

Petty, Richard E and Jon A. Krosnick, eds. 2014. *Attitude strength: Antecedents and consequences.* Psychology Press.

Princeton Survey Research Associates (2002). A Matter of Trust: What Users Want From Web Sites. Results of a National Survey of Internet Users for Consumer WebWatch. Available at http://www.consumerwebwatch.org/news/ report1.pdf.

Rhine, Ramon J and Laurence J. Severance. 1970. "Ego-involvement, discrepancy, source credibility, and attitude change," *Journal of Personality and Social Psychology,* 16.2: 175

Rieglesberger Jens, Sasse Angela, McCarthy John (2003), "Shiny Happy People Building Trust? Photos on e-commerce Websites and Consumer Trust", *Privacy and Trust,* April 5-10

Rutte, C G., and Messick, D. M. (1995), "An integrated model of perceived unfairness in organizations", Social Justice Research, 8(3), 239-261

Sherif, Carolyn W., and Carl I. Hovland. 1961. "Social Judgement: Assimilation and Contrast Effects in Communication and Attitude Change," *New Haven: Yale University Press*

Sherif, Muzafer, and Hadley Cantril. 1947. "The psychology of ego-involvements: Social attitudes and identifications."

Sherif, C.W., Sherif, M., and Nebergall,R. 1965." Attitude and Attitude Change: the social judgment-involvement approach," Norman, OK: *The University Book Exchange*

Sheth, Jagdish N. (1976), "Buyer-Seller Interaction: A conceptual Framework", *Proceedings of the Association for consumer Research.*, Vol 3, 382-86

Sheth, Jagdish N. "Demographics in consumer behavior." Journal of Business Research 5.2 (1977): 129-138.

Somervuori Outi and Rajava Niklas (2013), "Purchase Behavior and Psychological Responses to Different Price Levels", *Psychology and Marketing*

Spiro, Rosann L. and Williams, Kaylene C 1985, "Communication Style in the Salesperson-Customer Dyad", *Journal of marketing research, 22, 434-42*

Spiro, R.L. & Weitz, B.A. (1990), "Adaptive selling: Conceptualization, measurement, and nomological validity", *Journal of Marketing Research*, 27 (1), 61-69

Sternthal, Brian, Ruby Dholakia, and Clark Leavitt. 1978. "The persuasive effect of source credibility: Tests of cognitive response." *Journal of Consumer research*, 252-260.

Sin, Leo, and Alan Tse. "Profiling internet shoppers in Hong Kong: demographic, psychographic, attitudinal and experiential factors." Journal of International Consumer Marketing 15.1 (2002): 7-29.

Yukl, Gary and J. Bruce Tracey (1992), "Consequences of Influence Tactics Used with Subordinates,Peers,and the Boss" *Journal of Personal Selling & Sales Management,* 10 (Summer), 29-43

Xia, L., Monroe, K. B., & Cox, J. L (2004), “The price is unfair! A conceptual framework of price fairness perceptions,” *Journal of Marketing*, 68(4), 1-15

Zanker, Markus, et al. "Persuasive online-selling in quality and taste domains." E-Commerce and Web Technologies. Springer Berlin Heidelberg, 2006. 51-60.

Zaichkowsky, Judith Lynne. 1985. "Measuring the involvement construct." *Journal of consumer research* 12.3: 341

Zajonc, Robert B. 1980."Feeling and thinking: Preferences need no inferences," *American psychologist* 35.2: 151.